

REMARKS

The above amendment and these remarks are responsive to the Final Office Action of Examiner Florian M. Zeender mailed 07/28/2004.

Independent claim 11 has been amended to specify that the mixed integer optimization model of the network is formulated based upon the data and the parts procurement time performance measure. Entry of this amendment is respectfully requested.

Claims 1-4 and 6-23 are pending in the case, with claims 20-23 having been allowed in an office action mailed 09/03/2003, and the allowance of claims 20-23 having been subsequently withdrawn in an office action mailed 01/22/2004. Claims 14-18 have been withdrawn from consideration.

35 U.S.C. § 103

Claims 1-4, 6-13 and 19-23 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson et al. (US 6,324,522) in view of Feigin et al. (US 6,006,196).

Peterson et al. describe an information network for a plurality of vendors where each vendor can transfer inventory to and from other vendors in the network using a formalized system of purchase orders containing information regarding the inventory to be transferred. The network described by Peterson et al. is a system for determining inventory available within the network at a given point in time and formalizing the transfer of this inventory between vendors. In contrast, Applicants' claimed invention is a method of determining inventory levels to deploy

at a plurality of stocking locations during inventory planning, so as to have parts available for transfer to customer locations within a given period of time, wherein equipment requiring the parts is installed at the customer locations. Further, Peterson et al. lack the teaching of providing handling costs, travel time, specifying a parts procurement time performance measure, entering data into a computer program, computing inventory levels using the computer program, and ordering parts to maintain part inventory levels.

It has been alleged that Feigin et al. address the aforementioned deficiencies of Peterson et al. so as to render Applicants' claimed invention unpatentable, however Feigin et al. is also deficient in several respects. Accordingly, Applicants strenuously, but respectfully, traverse the allegation of unpatentability.

Feigin et al. describe a method of estimating future inventory replenishment requirements through statistical analysis of historical inventory demand data. While Feigin et al. do describe entering data, including a lead time, into a computer program, and using the computer program to compute inventory levels, the lead time "L" of Feigin et al. is merely an integer quantity indicating the number of weeks that are anticipated to receive a particular order, as described in column 4, lines 60-65 of Feigin et al.: "the order lead time for a specific product at a specific location is L weeks". This lead time is substantially different than the parts procurement time performance measure of Applicants' invention, as required by Applicants' independent claims 1, 11, 19, 20, and 23.

Applicants' representative expresses appreciation for the

detailed analysis provided by the Examiner which parses and contrasts Applicants' parts procurement time performance measure with the teachings of Feigin et al. However, the Examiner's analysis is defective for at least the following reasons.

The Examiner cites column 10, lines 39-54 of Feigin et al., specifically: "Method 1 estimates the fill rate to be 63% in weeks 6-16", and alleges that this anticipates Applicants' claimed parts procurement time performance measure. However, this citation refers to a result of the computation(s) performed by the method of Feigin et al., whereas Applicants' parts procurement time performance measure is an input to the computations performed by Applicants' invention. See Applicants' claims 1, 11, 19, 20, and 23 where a parts procurement time performance measure is specified, and the performance measure is entered into an optimization computer program or processor. In other words, having to proactively meet Applicants' performance measure affects the computed inventory levels, rather than merely computing what may be "filled off the shelf" at a some point in the future as in Feigin et al.

Further, the Examiner's analysis does not address an important aspect of Applicants' parts procurement time performance measure, specifically the third bullet of the analysis "transferred from stocking locations to customer locations" omits "within a pre-specified time". Merely computing what may be "filled off the shelf" in the future does not teach or anticipate how to determine inventory levels so as to have a sufficient stock of parts at a stocking location such that parts may be transferred to a customer within a period of time that is specified when computing the inventory levels.

Further, the Examiner qualifies the analysis by stating at the end: "where the customer location is interpreted to be a retailer". However, a customer and a retailer are two completely different parties. The Merriam-Webster Online dictionary defines a retailer as a party who "sell[s] in small quantities directly to the ultimate consumer", whereas a customer is defined as "one that purchases a commodity or service". In other words, the retailer sells a part, and the customer purchases the part from the retailer. Also, see MPEP 2111.01, Plain Meaning, "This means that the words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) (emphasis added)

Further, in column 5, lines 38-40, Feigin et al. state that "For the purpose of this example, we focus on one product that is sold by all three retailers." Feigin et al. therefore teach selling a product (i.e. part) rather than being a customer for the part, and therefore teach away from being the customer. See MPEP 1504.03, Nonobviousness, "A prima facie case of obviousness can be rebutted if the applicant...can show that the art in any material respect 'taught away' from the claimed invention...A reference may be said to teach away when a person of ordinary skill, upon reading the reference...would be led in a direction divergent from the path that was taken by the applicant." In re Haruna, 249 F.3d 1327, 58USPQ2d 1517 (Fed. Cir. 2001). Also, see MPEP 2141.02, Differences Between Prior Art and Claimed Invention, "A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984) (emphasis added)

As discussed in a response to an office action mailed 09/03/2003, in Feigin et al., a customer may travel to a retail location and purchase a part that may then be taken back to a customer location for use in equipment requiring the part (i.e. the equipment requiring parts is at a customer location, rather than a retail location).

In the example of an automobile dealership cited by the Examiner in the office action mailed 01/22/2004, the customer had mobile equipment (i.e. an automobile) which coincidentally happened to reside at the dealership (i.e. retailer) for repairs. Therefore, when the part was transferred to the retailer location as in Feigin et al., the part would also be transferred to a customer location, as the customer was at the retailer, even if only at the end of the day to pick up the automobile and pay the repair bill. Accordingly, Applicants added the claim limitation "wherein equipment requiring one or more of said parts is installed at one or more of said plurality of customer locations" to preclude this possibility. In other words, if equipment is installed at a customer location, the equipment would not be mobile (as would an automobile) and it would therefore not be possible for the equipment to also be located at a retailer.

In the example of an automobile dealership needing a part for a power wrench or other tool as cited by the Examiner in the office action mailed 07/28/2004, the dealership would be acting as a customer for the part, not a retailer as taught by Feigin et al. In other words, the automobile dealership may be either a customer or a retailer with respect to a given part, but cannot be both simultaneously as the Examiner seems to suggest.

For the reasons cited hereinabove, Peterson et al. and

Feigin et al., neither by themselves, nor in combination, teach or suggest the parts procurement time performance measure required by Applicants' independent claims 1, 11, 19, 20, and 23, so these independent claims are therefore allowable.

No arguments have been provided by the Examiner as to why dependent claim 2 is not allowable. Claim 2 is dependent upon allowable claim 1, and therefore incorporates all of the elements and limitations of claim 1. Applicants contend that the combination of claim 2 with allowable claim 1 is not obvious, and that claim 2 is therefore also allowable.

Dependent claims 3 and 4 have been rejected based upon a conclusory statement that "probability distributions are well known in the art of computer programming, and their use would have been obvious to one of ordinary skill in the art at the time of the invention, in order to determine certain desired statistics", however no documentary evidence has been cited to support this allegation of obviousness. These claims are, directly or indirectly, dependent upon allowable claim 1, and therefore incorporate all of the elements and limitations of claim 1. Applicants contend that the combination of claims 3 and 4 with allowable claim 1 is not obvious, and that claims 3 and 4 are therefore also allowable. In other words, choosing a probability distribution, specifically a Poisson distribution to solve the particular problem addressed by Applicants' invention was not an obvious choice at the time of the invention.

Dependent claims 6 and 21 have been rejected based upon a conclusory statement that "It is common for businesses to group parts by importance to accommodate customers", however no documentary evidence has been cited to support this allegation of

obviousness (or of being "common"). Claim 6 is dependent upon allowable claim 1, and therefore incorporates all of the elements and limitations of claim 1. Claim 21 is dependent upon allowable claim 20, and therefore incorporates all of the elements and limitations of claim 20. Applicants contend that the combination of claim 6 with allowable claim 1, as well as the combination of claim 21 with allowable claim 20 is not obvious, and that claims 6 and 21 are therefore also allowable. It has been alleged that Fig 4. of Feigin et al. teaches a plurality of times, however these times are for backorders and the like over a period of weeks, whereas the plurality of times in Applicants' claims 6 and 21 relate to respective pre-specified times of Applicants' parts procurement time performance measure for each grouping of parts by importance. Further, Feigin et al. is deficient as a reference as there is no teaching of "parts ... grouped by importance into a plurality of groups" as required by Applicants' claims 6 and 21.

Dependent claims 7 and 22 have been rejected based upon an allegation that "Peterson et al. teach means for keeping costs low". However, Peterson et al. do not teach all of the limitations of Applicants' claims 7 and 22, specifically "while meeting or exceeding said plurality of times" of Applicants' parts procurement time performance measure. Further, claim 7 is indirectly dependent upon allowable claim 1, and therefore incorporates all of the elements and limitations of claim 1. Claim 22 is indirectly dependent upon allowable claim 20, and therefore incorporates all of the elements and limitations of claim 20. Applicants contend that the combination of claim 7 with allowable claim 1, as well as the combination of claim 22 with allowable claim 20 is not obvious, and that claims 7 and 22 are therefore also allowable.

Dependent claims 8 and 11 have been rejected based upon a conclusory statement that "mixed integer optimization programs are well known in the art of computer programming, and their use would have been obvious to one of ordinary skill in the art at the time of the invention, in order to provide certain desired results", however no documentary evidence has been cited to support this allegation of obviousness. Claim 8 is dependent upon allowable claim 1, and therefore incorporates all of the elements and limitations of claim 1. Applicants contend that the combination of claim 8 with allowable claim 1 is not obvious, and that claim 8 is therefore also allowable. Claim 11 includes the limitation of Applicants' parts procurement time performance measure, and is allowable for reasons stated hereinabove. Further, there are numerous known optimization methods such as linear, quadratic, nonlinear, global, and non-smooth optimization, as well as artificial intelligence constraint optimization methods. With so many known optimizations methods, choosing a particular optimization method, specifically mixed integer optimization, to solve the problem addressed by Applicants' invention was not an obvious choice at the time of the invention.

Dependent claims 9 and 23 have been rejected based upon a conclusory statement that "It is an obvious business practice to compute inventory levels that maximizes the number of parts transferred at a given cost in order for the business to be as efficient as possible and thus maximize potential profit", however no documentary evidence has been cited to support this allegation of obviousness. Claim 9 is dependent upon allowable claim 1, and therefore incorporates all of the elements and limitations of claim 1. Applicants contend that the combination of claim 9 with allowable claim 1 is not obvious, and that claim

9 is therefore also allowable. Claim 23 includes the limitation of Applicants' parts procurement time performance measure, and is allowable for reasons stated hereinabove. Further, if unlimited time were available, then *arguendo* it might be obvious to maximize the transfer of parts, however balancing part transfer maximization with timeliness while meeting a total inventory cost is an important aspect of Applicants' invention, and this aspect, as required by Applicants' claims 9 and 23, is not obvious.

Dependent claim 10 has been rejected based upon an allegation that "Shipping companies such as FedEx provide information with regards to the time of shipping; and to compute this information would have been obvious to one of ordinary skill in the art at the time of the invention in order to provide the customer with precise delivery times." However, claim 10 is dependent upon allowable claim 1, and therefore incorporates all of the elements and limitations of claim 1. Applicants contend that the combination of claim 10 with allowable claim 1 is not obvious, and that claim 10 is therefore also allowable.

No arguments have been provided by the Examiner as to why dependent claims 12 and 13 are not allowable. Claims 12 and 13 are dependent upon allowable claim 11, and therefore incorporate all of the elements and limitations of claim 11. Applicants contend that the combination of claim 12 with allowable claim 11 is not obvious, and that the combination of claim 12 with allowable claim 11 is also not obvious, and that claims 12 and 13 are therefore also allowable.

Inasmuch as no documentary evidence has been cited to support the rejections of claims 2-4, 8-9, 12-13, and 23, it is respectfully requested that the rejection of claims 2-4, 8-9, 12-

13, and 23 under 35 U.S.C. 103(a) be withdrawn, and claims 2-4, 8-9, 12-13, and 23 allowed. **However, if this rejection is maintained, Applicants respectfully request that the Examiner provide an affidavit attesting to the above statements pursuant to 37 CFR 1.104(d)(2).** Further, merely restating an earlier rejection in a subsequent office action does suffice as an affidavit under 37 CFR 1.104(d)(2), and does relieve the Examiner of the burden to provide references supporting the Examiner's position. See *In re Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002), "[D]eficiencies of the cited references cannot be remedied by the [Office's] general conclusions about what is basic knowledge or common sense. The [Office's] findings must extend to all material facts and must be documented on the record, lest the haze of so-called expertise acquire insulation from accountability. Common knowledge and common sense, even if assumed to derive from the agency's expertise, do not substitute for authority when the law requires authority.") (internal quotes and citations omitted)

CONCLUSION

Accordingly, inasmuch as Peterson et al. and Feigin et al., neither by themselves, nor in combination, teach or suggest all of the steps, elements, or limitations required by Applicants' claims as is required in a 35 U.S.C. 103(a) rejection pursuant to MPEP 2143.03, it is respectfully requested that the Examiner withdraw the rejection of Applicants' independent claims 1, 11, 19, 20, and 23 under 35 U.S.C. 103(a), and allow claims 1, 11, 19, 20, and 23. "To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). (emphasis added) Also, "All words in a claim

must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Further, claims 2-4 and 6-10 depend, directly or indirectly, from allowable claim 1, claims 12-13 depend from allowable claim 11, and claims 21-22 depend from allowable claim 20. Claims 2-4, 6-10, 12-13, and 21-22 are therefore also allowable. Pursuant to MPEP 2143.03, "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Accordingly, it is respectfully requested that the Examiner withdraw the rejection of Applicants' dependent claims 2-4, 6-10, 12-13, and 21-22 under 35 U.S.C. 103(a), and allow claims 2-4, 6-10, 12-13, and 21-22.

The Application is believed to be in condition for allowance and such action by the Examiner is urged. Should differences remain, however, which do not place one/more of the remaining claims in condition for allowance, the Examiner is requested to phone the undersigned at the number provided below for the purpose of providing constructive assistance and suggestions in accordance with M.P.E.P. Sections 707.02(j) and 707.03 in order that allowable claims can be presented, thereby placing the Application in condition for allowance without further proceedings being necessary.

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